



Practice Masters Level A

5.3 Factoring Quadratic Expressions

Factor each expression.

1. $-12 - 3x$ _____

2. $-5x^2 - 10x$ _____

3. $6x^3 - 18x^2$ _____

4. $2x(3x + 4) - 3(3x + 4)$ _____

5. $-2x^2 - 5x$ _____

6. $-2x(x + 7) - (x + 7)$ _____

Factor each quadratic expression.

7. $x^2 + 5x + 4$ _____

8. $x^2 + x - 6$ _____

9. $x^2 + 3x - 18$ _____

10. $x^2 - 12x + 35$ _____

11. $x^2 - x - 2$ _____

12. $x^2 + 11x + 10$ _____

13. $x^2 - 25x + 100$ _____

14. $x^2 + 10x - 24$ _____

15. $x^2 - 12x + 32$ _____

16. $x^2 + 21x + 54$ _____

17. $2x^2 - x - 15$ _____

18. $3x^2 + 11x - 4$ _____

19. $8x^2 + 10x - 3$ _____

20. $25x^2 + 10x - 3$ _____

21. $9x^2 - 15x - 14$ _____

22. $12x^2 + 17x - 5$ _____

Solve each equation by factoring and applying the Zero-Product Property.

23. $x^2 - 225 = 0$ _____

24. $x^2 - 5x + 6 = 0$ _____

25. $x^2 + 7x = -10$ _____

26. $x^2 = 14x + 5$ _____

27. $-x^2 + 3x = -4$ _____

28. $x^2 - 8x = -16$ _____

29. $2x^2 - 32 = 0$ _____

30. $2x^2 + 14x + 20 = 0$ _____

31. $x^2 - 64 = 0$ _____

32. $4x^2 - 16 = 0$ _____